CDM Smith comments on Geosytec's Emailed RAOs and Remedial Alternatives
For the Rolling Knolls Superfund Site

RAOs

Prevent or minimize current and potential future unacceptable risks to human and ecological receptors through direct contact or ingestion of contaminated soil.

Control source areas to prevent or minimize impacts to groundwater.

Comment: Source areas should also control surface runoff to surface water.

Prevent or minimize current and potential future unacceptable risks to human receptors through ingestion of contaminated groundwater.

Restore groundwater to its expected beneficial use to the extent practicable by reducing contaminant concentrations below the more stringent of federal MCLs and NJ GWQS.

Remedial Alternatives

Soil (no future use scenario)

No Action

Site Controls

Comment: It is not clear how this alternative will be protective in the long-term.

Site Controls and Capping of Selected Areas to Reduce Overall Risk

Site Controls, Consolidation of Selected Materials, and Capping of Selected Areas to Reduce Overall Risk

Site Controls, Excavation, and Off-Site Disposal of Selected Areas to Reduce Overall Risk

Soil (residential future use scenario)

Some clarification is needed - are these in separate areas outside of the landfill? It is presumed this is meant to apply to the ball field and shooting range? If the areas are with the landfill limits, then this setup makes no sense.

Site Controls and Capping of All Landfill Material in the Developable Area of the Site

Excavation and Off-Site Disposal of All Landfill Material in the Developable Area of the Site

Groundwater

Comment: If their intention is just to treat TP-09, the range of alternatives seems to be reasonable. However, there is a concern to restricting the alternative to only one treatment technology at a time, it may not achieve the treatment objective for multiple contaminants coming from a source area. Using a treatment train with multiple treatment technologies may be more appropriate.

Until more specific information regarding the alternatives is available (e.g., the contaminants and areas to be treated), it is not possible to comment on the effectiveness of the alternatives. To date they have not demonstrated how MNA would be application to all of the site contaminants though.

No Action

Monitored Natural Attenuation (MNA) with Source Control

Biological Treatment and MNA with Source Control

In-Situ Chemical Oxidation and MNA with Source Control

Containment Using a Permeable Reactive Wall and MNA with Source Control

Note that by "source control" in the groundwater remedial alternatives, we are referring to the buried materials observed at Test Pit TP-09, upgradient of well MW-3, or similar buried source materials.